



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2007-28413; Directorate Identifier 2007-NE-25-AD; Amendment 39-17993; AD 2014-21-01]**

**RIN 2120-AA64**

**Airworthiness Directives; General Electric Company Turbofan Engines**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are superseding airworthiness directives (ADs) 90-26-01, 91-20-02, and 2009-05-02 for all General Electric Company (GE) CF6-80C2 and CF6-80E1 series turbofan engines. This AD retains the requirements of those ADs and requires removal of additional fuel manifold part numbers (P/Ns), additional repetitive inspections, replacement as required of certain fuel manifold P/Ns and tube (block) clamps, and replacement of loop clamps. This AD was prompted by a report of an under-cowl fire caused by a manifold high-pressure fuel leak, and several additional reports of fuel leaks. We are issuing this AD to prevent failure of the fuel manifold, which could lead to uncontrolled engine fire, engine damage, and damage to the airplane.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this AD, contact General Electric Company, GE Aviation, Room 285, 1 Neumann Way, Cincinnati, OH 45215; phone:

(513) 552-3272; email: [geae.aoc@ge.com](mailto:geae.aoc@ge.com). You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call (781) 238-7125.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2007-28413; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: (800) 647-5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Kasra Sharifi, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. 01803; phone (781) 238-7773; fax: (781) 238-7199; email: [kasra.sharifi@faa.gov](mailto:kasra.sharifi@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 90-26-01, Amendment 39-6810 (55 FR 49611, November 30, 1990), (“AD 90-26-01”), and AD 91-20-02, Amendment 39-8036 (56 FR 55231, October 25, 1991), (“AD 91-20-02”), and AD 2009-05-02, Amendment 39-15826 (74 FR 8161, February 24, 2009), (“AD 2009-05-02”). AD 90-26-01 and AD 91-20-02 applied to all GE CF6-80C2 series turbofan engines. AD 2009-05-02 applied to all GE CF6-80C2 and CF6-80E1 series turbofan engines. The NPRM published in the *Federal Register* on January 17, 2014 (79 FR 3139). The NPRM was prompted by a report of an under-cowl fire caused

by a manifold high-pressure fuel leak and several additional reports of fuel leaks. The NPRM proposed to retain the requirements of the superseded ADs: AD 90-26-01 and AD 91-20-02 required removal of certain fuel manifold P/Ns; AD 2009-05-02 required inspection of certain fuel manifold P/Ns and replacement of certain consumable components. The NPRM also proposed to require removal of additional fuel manifold P/Ns, performance of additional initial and repetitive inspections, replacement as required of certain fuel manifold P/Ns and tube (block) clamps, and replacement of loop clamps at each fuel manifold inspection opportunity. We are issuing this AD to prevent failure of the fuel manifold, which could lead to uncontrolled engine fire, engine damage, and damage to the airplane.

### **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM (79 FR 3139, January 17, 2014) and the FAA's response to each comment.

### **Request to Replace Two Incorrect Part Numbers**

Several commenters requested that we replace two incorrect fuel manifold P/Ns with the correct P/Ns.

We agree. We corrected the P/Ns in paragraph (c) of this AD from P/Ns 1308M31G12 and 1308M32G12 to P/Ns 1303M31G12 and 1303M32G12.

### **Request to Change and Clarify Compliance Information**

Several commenters requested that we make changes to Table 1 to paragraph (e) in the NPRM (79 FR 3139, January 17, 2014). Three commenters requested that we remove the compliance time of six months because this requirement is unjustified. Two commenters requested that we remove one row of information due to redundancy. One commenter requested that we reorder the rows to make the table easier to follow.

We partially agree. We agree that the table is problematic. A six-month compliance time was meant to be a “grace period” for products that might have already exceeded the threshold. But, including a “grace period” is unnecessary, since AD 2009-05-02, which we are superseding with this AD, mandates the same requirement. We removed the six-month compliance time period.

We disagree with making the other changes as suggested, but did reword paragraph (e) to this AD to eliminate the tables and clarify the AD.

#### **Request to Change Definition of Shop Visit**

Several commenters requested that we change the definition of shop visit to exclude certain maintenance visits because the current definition forces the replacement of the fuel manifold at the majority of shop visits.

We agree. We changed the definition of shop visit for the purposes of this AD to exclude shop visits for specified types of maintenance.

#### **Request to Allow Reinstallation of Certain P/N Fuel Manifolds During On-Wing Maintenance**

Virgin Atlantic Airways, Delta Air Lines, AIRDO, and GE requested that we allow reinstallation of fuel manifolds, P/Ns 1303M31G12, 1303M32G12, 2420M70G01, and 2420M71G01, during on-wing maintenance, and only mandate removal of these P/Ns during shop visits. The commenters state that modification of the fuel manifold configuration during on-wing maintenance is not practicable due to complexity, potential for maintenance error, and cost compared to replacement during shop visit.

We agree. The intent of this AD is to require removal of fuel manifolds, P/Ns 1303M31G12, 1303M32G12, 2420M70G01, and 2420M71G01, during shop visit, not during on-wing maintenance. We removed the installation prohibition statement that included these P/Ns.

### **Request to Exclude Certain Engine Models from Applicability**

Lufthansa Cargo requested that we exclude from the applicability of this AD certain CF6-80C2 engine models.

We disagree. All CF6-80C2 engine models are affected by the same unsafe condition. We did not change this AD.

### **Request to Change the Focus of this AD, and to Retain and Supersede Different ADs**

KLM Royal Dutch Airlines (KLM) requested that we address pigtail cracking in this AD, instead of tube (block) clamp and loop clamp chafing, by retaining AD 2009-05-02, Amendment 39-15826 (74 FR 8161, February 24, 2009), AD 91-20-02, Amendment 39-8036 (56 FR 55231, October 25, 1991), and AD 90-26-01, Amendment 39-6810 (55 FR 49611, November 30, 1990), and by superseding AD 2007-11-20, Amendment 39-15077 (72 FR 30956, June 5, 2007). KLM states that the recent under-cowl fire event was related to pigtail cracking, which the FAA has not addressed, and not to tube (block) and loop clamp chafing.

We disagree. Pigtail cracking, tube (block) clamp chafing, and loop clamp chafing can all be caused by resonant vibration within the engine operation range. This AD requires removal of fuel manifolds susceptible to resonant vibration, which addresses pigtail cracking, tube (block) clamp chafing, and loop clamp chafing leading to fuel manifold leaks. We did not change this AD.

### **Request to Remove from Paragraph (e)(2) Reference to “Tube (Block) Clamp”**

KLM requested that we delete reference to the “Tube (Block) Clamp” from paragraph (e)(2) of this AD because instructions regarding inspection and replacement of the tube (block) clamp are not addressed in that paragraph.

We partially agree. The reference to the “Tube (Block) Clamp” in paragraph (e)(2) is inaccurate. We restructured the compliance paragraphs. Paragraphs (e)(2)(ii) and (e)(2)(iii) of this AD now reference “Tube (Block) Clamp.”

### **Request to Provide More Information Regarding the Unsafe Condition**

Lufthansa Technik AG and Deutsche Lufthansa AG requested that we provide additional details concerning the unsafe condition.

We partially agree. Although the AD Discussion section provides sufficient information regarding the fuel manifold leaks, we included a reference to additional information in the Related Information paragraph of this AD.

### **Request to Expand Compliance to Address Other Unsafe Conditions**

One commenter requested that we expand the compliance requirements of this AD to address other possible unsafe conditions in the designs of the accessory gearbox, spray shield, and fuel nozzle, and made reference to National Transportation Safety Board (NTSB) safety recommendations (SRs) A-13-022 and A-12-047.

We disagree. Unsafe conditions in the engine caused by designs of the accessory gearbox and spray shield are not the subjects of this AD. Fire caused by fuel manifold leak is the subject of this AD. SRs A-13-022 and A-12-047 do not address fire caused by fuel manifold leaks. We did not change this AD.

### **Request to Allow Use of Future Revisions of Referenced Service Bulletins (SBs)**

Delta Air Lines requested that we allow use of future revisions of the SBs referenced in compliance paragraphs because this would eliminate the need to request an alternative method of compliance (AMOC) if the SBs are revised.

We disagree. We are authorized to mandate use of procedures in SBs that are published and which we have reviewed. Since future revisions of SBs are not yet published, we are not authorized to mandate their use in advance. We did not change this AD.

### **Request to Address Repetitive Inspections of Fuel Manifolds Repaired with PTFE-Coated Para-Aramid Tape**

Japan Airlines requested that we allow repetitive inspections of fuel manifolds that have PTFE-coated para-aramid tape at the tube (block) clamp locations. The NPRM

(79 FR 3139, January 17, 2014) addressed initial inspections, but did not address repetitive inspections of fuel manifolds repaired with PTFE-coated para-aramid tape.

We agree. We changed the references to SBs in this AD to more recent versions that allow repetitive inspections of fuel manifolds that have PTFE-coated para-aramid tape at the tube (block) clamp locations.

#### **Request to Require the Use of GE Method to Replace Fuel Manifolds**

Boeing Commercial Airplanes and another commenter requested that we require that manifolds be replaced using the method stated in the GE SBs. To substantiate the request, the second commenter referred to NTSB SR A-13-028.

We disagree. The regulations require that operators use acceptable methods, techniques, and practices to replace the fuel manifolds. The GE SBs contain one acceptable method to replace the fuel manifolds, but not the only acceptable method of doing so. We did not change this AD.

#### **Request to Clarify Certain Preamble and Compliance Paragraphs**

GE requested that we clarify, in the “Proposed AD Requirements” paragraph, the additional P/Ns of fuel manifolds to be inspected and replaced. GE also requested that we make clear, in the “Summary” paragraph, that on-wing replacement of tube (block) clamps and fuel manifolds is based on inspection results. GE also requested that we use alternative wording in paragraph (e) and Table 2 to paragraph (e) of this AD.

We partially agree. We agree that we needed to clarify the P/Ns to be removed before further flight, and those to be inspected until removed. We changed this AD to clearly identify both groups. We also agree that paragraph (e) of this AD required clarification. We reworded paragraph (e) of this AD to clearly identify the requirements to correct the unsafe condition.

### **Request to Allow Installation of Certain Prohibited P/Ns**

Asiana Airlines, EVA Airways, Thai Airways, AIRDO, and Japan Airlines requested that for fuel manifold, P/Ns 1303M31G12, 1303M32G12, 2420M70G01, and 2420M71G01, we reduce the inspection interval or require non-destructive inspection at shop visits rather than require removal and prohibit installation. The operators state that their records do not indicate that these parts cause leaks or experience wear that would cause their replacement, and they expressed concerns that the reliability of the replacement fuel manifolds is lower than that of the prohibited fuel manifolds.

We disagree. A reduced inspection interval does not prevent pigtail cracking between shop visits. Our data does not justify a reduced inspection interval to prevent fuel leak events, or indicate that the new fuel manifold design has lower reliability. We did not change this AD.

### **Request to Allow Use of Certain P/Ns for Drained Engine Configurations**

Lufthansa Technik AG requested that we allow the use of fuel manifold, P/Ns 2420M70G01, 2420M71G01, 1303M31G12, and 1303M32G12, as replacement parts for drained (pre SB 73-0253) engine configurations. The commenter states that GE's service information allows use of fuel manifold, P/Ns 1303M31G12 and 1303M32G12, on engines with drain system installed, and this AD does not prohibit installation of fuel manifold, P/Ns 1303M31G10 and 1303M32G10.

We disagree. We have no data showing that drainless fuel manifolds installed in engines with a drain system are more reliable than when installed in engines with a drainless system. We did not change this AD.

### **Request to Remove Certain Fuel Manifolds from Applicability**

Lufthansa Cargo requested that we remove from the applicability of this AD drainless fuel manifolds to which PTFE-coated para-aramid tape was applied and the loop and tube (block) clamps were inspected.



We disagree. We received several reports of fuel leaks and a report of under-cowl fire. The inspections alone required by this AD do not address pigtail cracking leading to fuel leaks, and therefore do not provide an acceptable level of safety. We did not change this AD.

#### **Request to Remove the Word “Uncontrolled” from the Description of Fire**

Boeing Commercial Airplanes requested that we remove from the preamble the word “uncontrolled” from the description of fire caused by a fuel manifold leak because an uncontrolled fire in this scenario could only occur with a significant failure of the engine nacelle fire protection system.

We disagree. The data upon which we relied, including the Continued Airworthiness Assessment Methodologies (CAAM) database for transport category airplanes, includes data showing flammable fluid leaks leading to uncontrolled fires. We did not change this AD.

#### **Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously and editorial changes to improve clarity. We have determined that these changes:

- Are consistent with the intent that was proposed in the NPRM (79 FR 3139, January 17, 2014) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (79 FR 3139, January 17, 2014).

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

### **Costs of Compliance**

We estimate that this AD would affect 1,126 engines installed on airplanes of U.S. registry. We also estimate that required parts cost about \$34,894 per engine. We also estimate that it will take about 6 hours to accomplish the actions required by this AD. The average labor rate is \$85 per hour. Based on these figures, we estimate the total cost of this AD to U.S. operators to be \$39,864,904.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by:

a. Removing airworthiness directive (AD) 90-26-01, Amendment 39-6810 (55 FR 49611, November 30, 1990); AD 91-20-02, Amendment 39-8036 (56 FR 55231, October 25, 1991); and AD 2009-05-02, Amendment 39-15826 (74 FR 8161, February 24, 2009); and

b. Adding the following new AD:

**2014-21-01 General Electric Company:** Amendment 39-17993; Docket No. FAA-2007-28413; Directorate Identifier 2007-NE-25-AD.

#### **(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

This AD supersedes AD 90-26-01, Amendment 39-6810 (55 FR 49611, November 30, 1990); AD 91-20-02, Amendment 39-8036 (56 FR 55231, October 25, 1991); and AD 2009-05-02, Amendment 39-15826, (74 FR 8161, February 24, 2009).

**(c) Applicability**

This AD applies to all General Electric Company (GE) CF6-80C2 and CF6-80E1 series turbofan engines with fuel manifold, part number (P/N) 1303M31G04, 1303M32G04, 1303M31G06, 1303M32G06, 1303M31G07, 1303M32G07, 1303M31G08, 1303M32G08, 1303M31G12, 1303M32G12, 2420M70G01, or 2420M71G01, installed.

**(d) Unsafe Condition**

This AD was prompted by a report of an under-cowl fire caused by a fuel manifold high-pressure fuel leak, and several additional reports of fuel leaks. We are issuing this AD to prevent failure of the fuel manifold, which could lead to uncontrolled engine fire, engine damage, and damage to the airplane.

**(e) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(1) Fuel Manifold Removal.**

(i) After the effective date of this AD, do not return to service any CF6-80C2 or CF6-80E1 series engine with fuel manifold P/N 1303M31G04, 1303M32G04, 1303M31G06, 1303M32G06, 1303M31G07, 1303M32G07, 1303M31G08, or 1303M32G08, installed.

(ii) At the next engine shop visit after the effective date of this AD, remove from service fuel manifold P/Ns 1303M31G12, 1303M32G12, 2420M70G01, and 2420M71G01.

(2) Fuel Manifold, Loop Clamp, and Tube (Block) Clamp Initial and Repetitive Inspection and Replacement.

(i) For CF6-80C2 and CF680E1 series engines, with fuel manifold, P/N 1303M31G12, 1303M32G12, 2420M70G01, or 2420M71G01 installed, inspect the fuel manifold and replace if required by inspection results, and replace the loop clamps as follows:

(A) For CF6-80C2 series engines, use paragraphs 3.A, 3.C, and 3.D of GE CF6-80C2 Service Bulletin (SB) No. S/B 73-0326 R04, Revision 4, dated December 23, 2009, to do the inspection and replacements.

(B) For CF6-80E1 series engines, use paragraphs 3.A, 3.B, and 3.C of GE CF6-80E1 SB No. S/B 73-0061 R04, Revision 4, dated December 23, 2009, to do the inspection and replacements.

(C) Compliance time for fuel manifold inspection and loop clamp replacement:

(1) If the engine is a first-run engine, inspect the fuel manifold and replace the loop clamps within 7,500 flight hours (FH) time-since-new (TSN).

(2) If the engine's fuel manifold was ever inspected and new loop clamps were previously installed, inspect the fuel manifold and replace the loop clamps within 7,500 FH time-since-last-inspection (TSLI).

(3) If the engine's fuel manifold was not inspected, new loop clamps were not installed, or it is unknown when the loop clamps were installed, inspect the fuel manifold and replace the loop clamps within 1,750 FH time-since-last-shop-visit or within 4 months after the effective date of this AD, whichever occurs later.

(ii) For CF6-80C2 and CF6-80E1 series engines, with fuel manifold, P/N 1303M31G12, 1303M32G12, 2420M70G01, or 2420M71G01, with tube (block) clamp, P/N 1153M26G15, installed, inspect fuel manifold and tube (block) clamps, and replace if required by inspection results, as follows:

(A) For CF6-80C2 series engines, use paragraphs 3.A.(1) through 3.A.(8) and 3.C.(1) through 3.C.(2) of GE CF6-80C2 SB No. S/B 73-0414, Revision 1, dated May 29, 2014, to do the inspection.

(B) For CF6-80E1 series engines, use paragraphs 3.A.(1) through 3.A.(6) and 3.C.(1) through 3.C.(2) of GE CF6-80E1 SB No. S/B 73-0121, Revision 1, dated May 29, 2014, to do the inspection.

(C) Compliance time for fuel manifold and tube (block) clamp inspection:

(1) If the engine is a first-run engine, inspect the fuel manifold and tube (block) clamps within 7,500 FH TSN or within 3 months after the effective date of this AD, whichever occurs later.

(2) If the engine was previously inspected using either of GE CF6-80C2 SB No. S/B 73-0414, Revision 1, dated May 29, 2014, or GE CF6-80E1 SB No. S/B 73-0121, Revision 1, dated May 29, 2014, or earlier versions, then inspect the fuel manifold and tube (block) clamps within 7,500 FH TSLI or within 3 months after the effective date of this AD, whichever occurs later.

(3) If the engine is not a first-run engine and was not previously inspected using GE CF6-80C2 SB No. S/B 73-0414, Revision 1, dated May 29, 2014, or GE CF6-80E1 SB No. S/B 73-0121, Revision 1, dated May 29, 2014, or earlier versions, then inspect the fuel manifold and tube (block) clamps within 7,500 FH TSN or within 3 months after the effective date of this AD, whichever occurs later.

(iii) Thereafter, inspect fuel manifold, P/Ns 1303M31G12, 1303M32G12, 2420M70G01, and 2420M71G01, and tube (block) clamps, replace if required by inspection results, and replace the loop clamps within every 7,500 FH TSLI, using paragraphs (e)(2)(i)(A), (e)(2)(i)(B), (e)(2)(ii)(A), and (e)(2)(ii)(B) of this AD, as applicable.

**(f) Definition**

(1) For the purposes of this AD, an engine shop visit is the induction of an engine into the shop where the separation of a major engine flange occurs, except that induction into the shop for any of the reasons in paragraphs (f)(i) through (f)(iv) of this AD is not an engine shop visit:

(i) Induction of an engine into a shop solely for removal of the compressor top or bottom case for airfoil maintenance, or for variable stator vane bushing replacement;

(ii) Induction of an engine into a shop solely for replacement of the turbine rear frame;

(iii) Induction of an engine into a shop solely for replacement of the accessory gearbox or transfer gearbox, or both; or

(iv) Induction of an engine into a shop solely for core vibration trim balance procedure that requires separation of a major engine flange.

(2) For the purposes of this AD, a first-run engine is an engine that has not had a shop visit since entering service.

**(g) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Engine Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(2) Previously approved AMOCs for AD 2009-05-02 (74 FR 8161, February 24, 2009) remain approved for the corresponding requirements of paragraphs (e)(1) and (e)(2) of this AD.

**(h) Related Information**

(1) For more information about this AD, contact Kasra Sharifi, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. 01803; phone (781) 238-7773; fax: (781) 238-7199; email: kasra.sharifi@faa.gov.

(2) For additional details of the under cowl fire that prompted this AD, refer to National Transportation Safety Board (NTSB) safety recommendation (SR) A-13-028. The NTSB SR is available on the Internet at <http://www.nts.gov/doclib/recletters/2013/A-13-028.pdf>.

**(i) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) General Electric Company (GE) CF6-80C2 Service Bulletin (SB) No. 73-0326 R04, Revision 4, dated December 23, 2009.

(ii) GE CF6-80C2 SB No. S/B 73-0414, Revision 1, dated May 29, 2014.

(iii) GE CF6-80E1 SB No. 73-0061 R04, Revision 4, dated December 23, 2009.

(iv) GE CF6-80E1 SB No. S/B 73-0121, Revision 1, dated May 29, 2014.

(3) For GE service information identified in this AD, contact General Electric Company, GE Aviation, Room 285, 1 Neumann Way, Cincinnati, OH 45215; phone: (513) 552-3272; email: [geae.aoc@ge.com](mailto:geae.aoc@ge.com).

(4) You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call (781) 238-7125.

(5) You may view this service information at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.



Issued in Burlington, Massachusetts, on October 7, 2014.

Kim Smith,  
Acting Directorate Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.

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